



15 June 2006

**Background Information**

## **Roll-out of Free-to-air digital TV in 2007**

### **Free-to-Air Digital TV: *Questions and Answers***

#### **What is being announced today?**

The key announcements today are that:

- New Zealand is to get free-to-air digital television beginning next year, to be delivered by a group of New Zealand's free-to-air broadcasters called Freeview
- Digital TV will be delivered by both satellite and terrestrial transmission, with terrestrial available across 75 percent of the country once the service is fully rolled out
- Satellite transmission is expected to begin early next year, with the progressive rollout of terrestrial services to follow
- The government has agreed in principle to provide funding of up to \$25 million to assist with the establishment of Freeview, with the bulk of costs to be met by broadcasters
- The government will provide broadcasters with free access to digital frequencies during the transition to digital, estimated to be worth up to \$10 million
- A cost benefit study has been released, which concludes that there are considerable benefits to New Zealand from a move to digital TV
- The digital TV DTT infrastructure will be rolled out by Broadcast Communications Ltd (BCL)
- Analogue switch-off is anticipated to be in 6-10 years, based on experience in other markets

#### **What are the advantages of free-to-air digital TV?**

Digital TV will offer a perfectly clear picture of all free-to-air channels, fewer reception problems, and access to new digital free-to-air channels and services as they are introduced.

Digital removes the current constraint on number of channels and amount of content delivered under analogue transmission.

New channels and services could include specialist channels (such as a children's channel), widescreen formats, and access to New Zealand's television archive

heritage. Viewers will be able to navigate their way through the new services using an on-screen electronic programme guide.

Digital also offers the potential for interactive services, which could include health advice, education, text messages, e-mail, and consumer services. Interactive television can give extra control to viewers, offering extra involvement such as choice in coverage from sports events.

### **How does digital television work?**

Sound and pictures are transmitted as a stream of data, which enables several television channels to be carried in the same space used by a single traditional analogue channel. A set-top box, or a television with an in-built decoder, turns them back into sound and pictures.

The signal comes through one of three systems: terrestrial (received by a TV aerial), satellite (requiring a dish), or cable. FreeView will offer terrestrial and satellite systems.

### **How will digital TV be delivered?**

Digital TV will be broadcast both by satellite (DTH) and terrestrial (DTT) signals. Around 75 percent of households will be able to access Freeview by DTT (terrestrial signal) once phase one of the service is fully rolled out.

Satellite transmission is expected to begin next year, with the progressive rollout of terrestrial services to follow. The timeframe for DTT is dependent on BCL and the broadcasters, but roll out is anticipated to be 12-18 months.

### **How will people connect to digital TV?**

Viewers will need a set-top box to access digital TV.

Connecting to DTT will require a UHF aerial, which many households already have to receive channels like Prime TV and SKY UHF. These aerials currently retail at around \$20-\$100.

A small satellite dish will be required for those households not able to access a terrestrial signal (DTT). This is likely to involve a cost of \$150 - \$200, including installation.

### **How much will a set-top box cost?**

There are likely to be several types of set-top box on sale, which will be certified by FreeView as compatible with the package of digital channels on offer. The cost is likely to be around \$200 initially. Costs may decrease as more households connect to digital.

There will be no ongoing charges following purchase of the set top box, and as new content and channels are added.

### **What areas of the country will have access to DTT?**

Details of this are still being worked through but there will be at least ten main centres covered around the country.

### **Will people need a new TV set to view digital?**

No. All colour television sets can play a digital signal provided they have a set top box. As people replace their television sets in the future there will be models on sale that are digital capable, and won't require a set-top box.

### **Will High Definition TV be available through Freeview?**

Freeview Broadcasters will need to agree amongst themselves whether the technology that will be used will be capable of delivering HDTV at some point in the future.

There are currently higher costs involved for both broadcasters and consumers– the set top box would be more expensive and producing material in HD costs more. By the time DTT is rolled out, however, it may be that those costs have come down and broadcasters can then look again at this option.

The government strongly encourages broadcasters to consult and agree on standards in relation to digital transmission, including the delivery of HDTV.

Issues around HDTV that have received media attention recently relate to Sky's stated intention to roll out HDTV at some point and the preference they have indicated for a specific HD format, which may not be compatible with some HDTV sets currently available in New Zealand.

### **Does terrestrial have any advantages over satellite?**

Both platforms will deliver similar content. The main advantage of terrestrial is that people who live within the coverage area won't need to install a satellite dish to receive it. Terrestrial is also likely to be better suited to delivering a local service (such as CTV in Christchurch) because the transmission signals can be contained to a single geographical region.

### **What happens to the current analogue service?**

Analogue television signals, including all of the current channels, will continue to be transmitted as they are now, during a transition period of six to ten years.

### **When will analogue be 'switched off'?**

Analogue switch-off will occur when a high percentage of New Zealand households have some form of digital viewing option. This is likely to be 6–10 years.

Transmitting simultaneously in both analogue and digital formats is costly for broadcasters, so eventually analogue signals will need to be switched off. No date for this has yet been set.

### **What is *Freeview*?**

Freeview is the platform from which free-to-air digital TV will be delivered to New Zealanders. It has involved collaboration between New Zealand's free to air

broadcasters, including Television New Zealand, CanWest, Maori TV, Trackside and Radio New Zealand.

Freeview will operate on a non-profit basis, with open access for new services.

### **What is the government's involvement in digital TV?**

The government has agreed in principle to provide funding of up to \$25 million to assist with the establishment of Freeview, with the bulk of costs to be met by broadcasters. Broadcasters will also get free access to digital frequencies during the transition to digital, estimated to be worth up to \$10 million.

The government also has a role as the owner of Television New Zealand, Radio New Zealand, Maori TV and Broadcasting Communications Ltd (BCL).

The government will also closely monitor issues around the rollout of digital to ensure consumer and national interests are taken into account as appropriate.

### **Who will be responsible for maintaining the transmission infrastructure?**

The digital TV infrastructure will be rolled out by Broadcast Communications Ltd (BCL), using the towers it owns and operates for analogue television transmission. BCL will be responsible for maintaining the system.

The Optus D1 satellite (owned by Singtel/Optus PLC Australia) is due to be launched later this year. BCL is also, however, contracting with Optus to lease one transponder (room for about 20 television channels), which it will sub-lease to free-to-air broadcasters for a FreeView DTH service.

### **What are the benefits to New Zealand of moving to free-to-air digital?**

It will ensure all New Zealanders have the opportunity to enjoy the advantages of digital television, and ensure public broadcasting and local content remain a strong part of the free-to-air TV mix.

A cost benefit study published today concluded that New Zealand stands to make a significant gain (estimated at \$230 million) if it makes a full transition to digital television with analogue switch off by 2015.

### **What are the risks of New Zealand not making the move to free-to-air digital?**

The considerable advantages offered by digital TV, mean analogue is on a path to obsolescence in most OECD countries.

A failure to move to free-to-air digital would put the future viability of public broadcasting television, and other free-to-air services, at risk.

A cost benefit study concluded that without a full transition to free-to-air digital TV (as a viable alternative to Pay TV digital), the net cost to the country could be as high as \$156 million.

Without a transition to digital, the free-to-air broadcasters' audience share could also fall from 80 to 50 per cent, or even lower, if digital pay TV options grow at an accelerated rate. This would mean fewer options available on free-to-air

## Free-to-Air Digital TV: *Summary of Cost Benefit Analysis*

### The context

- As part of the development of its digital policy, the government commissioned Spectrum Strategy Consultants to provide an independent assessment of the potential costs and benefits of a move to free-to-air digital TV.
- An assessment of digital TV in New Zealand revolves around many of the same issues identified in overseas markets: the potential national and commercial benefits, the cost and the appropriate role for government. In New Zealand, as in many other OECD countries, government and industry are also working in partnership to manage the transition to digital.
- Uncommon geography and demographics give New Zealand a range of additional challenges, which need to be taken into account - such as providing coverage to expansive rural areas and working to improve the current mixed quality of terrestrial reception.

### What the report assessed

- The Spectrum report was based on extensive consultation and analysis of locally available and relevant international data. Consultation included interviews with broadcasters (free-to-air, pay and regional), network operators (BCL, Telecom, Vector), government (MED, NZ on Air, Radio NZ), and producers (SPADA).
- Stakeholders received copies of the market forecasting data and cost benefit methodologies developed from those interviews, and were given the opportunity to comment on factual accuracy. The report was also independently peer reviewed by digital television experts from the UK.
- To undertake analysis, Spectrum first developed a market-forecasting model to assess the impact under three different scenarios. These were a 'business as usual' or 'do minimum' base case; a free-to-air DTV platform launch with no analogue switch-off (ASO), and a DTV launch with ASO within 20 years.
- The results of this market forecasting were then used as inputs into a cost benefit model. The report also assessed the impact of different analogue switch-off dates, of different platforms (terrestrial, satellite or a hybrid), of different content offerings, and evaluated the impact for individual stakeholders of the digital transition.

### The key conclusions from the report

- New Zealand stands to make a significant gain (estimated at \$230 million) if it makes a full transition to digital television with analogue switch off by 2015.
- Without a full transition to free-to-air digital TV (as a viable alternative to Pay TV digital), the net cost to the country could be as high as \$156 million.
- Without a transition to digital, the free-to-air broadcasters' audience share could fall from 80 to 50 per cent or even lower if pay TV options grow at an accelerated rate.

- A transition to free-to-air digital television would be likely to result in a new 'mixed economy' of free-to-air television and pay TV, with both able to be delivered on new platforms such as internet protocol TV. The report stresses the importance of the free-to-air digital content on offer, as the basis for providing viewers with an alternative to paying for television services.
- A combination of free-to-air terrestrial (DTT) and satellite (DTH) delivery is judged to be optimal in terms of viewer take-up (and thus for the most efficient transition to ASO). From a consumer point of view, the combination provides a digital option for all households even if those outside DTT reception will have to pay more expensive (DTH) equipment installation costs. From a Government/broadcaster perspective, the cost of transmitting over two transmission platforms is greater but needs to be balanced against the increased economic and social benefit to be derived from an earlier and smoother transition to ASO. It also avoids eventual reliance (post ASO) on a single satellite for all New Zealand television broadcasting.
- There is a net cost to free-to-air broadcasters, for the first ten years of making the digital transition, although the overall impact on them is positive if there is analogue switch-off.
- For government, and for the country as a whole, there will be a 'digital dividend' at analogue switch-off, with the release of both VHF and UHF spectrum to be auctioned for other purposes. This is calculated to total \$131 million (assuming a combined, or hybrid transmission platform) if analogue switch-off occurs in 2015.
- The report suggests that achieving the transition will require public education, based on co-operation with broadcasters. It notes that a clear consensus between government and industry regarding the objectives of digital television would help avoid the problems that have arisen in other countries. Clear promotion and co-ordination, with government, the broadcasters and the supply chain working together, are among the important factors affecting the transition from analogue to digital.

A copy of the full report is available at [www.mch.govt.nz](http://www.mch.govt.nz)